

WATER QUALITY MEMORANDUM

Utah Coal Regulatory Program

May 10, 2016

TO: Internal File

THRU: Steve Christensen, Permit Supervisor 

FROM: Keenan Storrar, Hydrologist 

RE: Third Quarter 2015 Water Monitoring, PacifiCorp, Deer Creek Mine.
C/015/0018, Task ID #4993

The Deer Creek Mine monitoring plan is described in Appendix A-1 of Volume 9 of the MRP. The Deer Creek Mine indefinitely ceased operations January 7th, 2015 and has transitioned to reclaiming the mine. The proposed bulkhead closure plan was rejected by MSHA. The Permittee has submitted a closure plan, Task # 5181, for how they will handle gravity discharge from both the Deer Creek and Rilda Right portals.

1. **Were data submitted for all of the MRP required sites?** YES NO

2. **Were all required parameters reported for each site?** YES NO

Springs YES NO

SP1-29 not monitored. May be missing because the database is broken.
NEWUA meter-2 not monitored— NEWUSSD controls these meters

Streams YES NO

Wells YES NO

UPDES YES NO

3. **Were any irregularities found in the data?**

Listed parameters are more than two standard deviations above the mean.

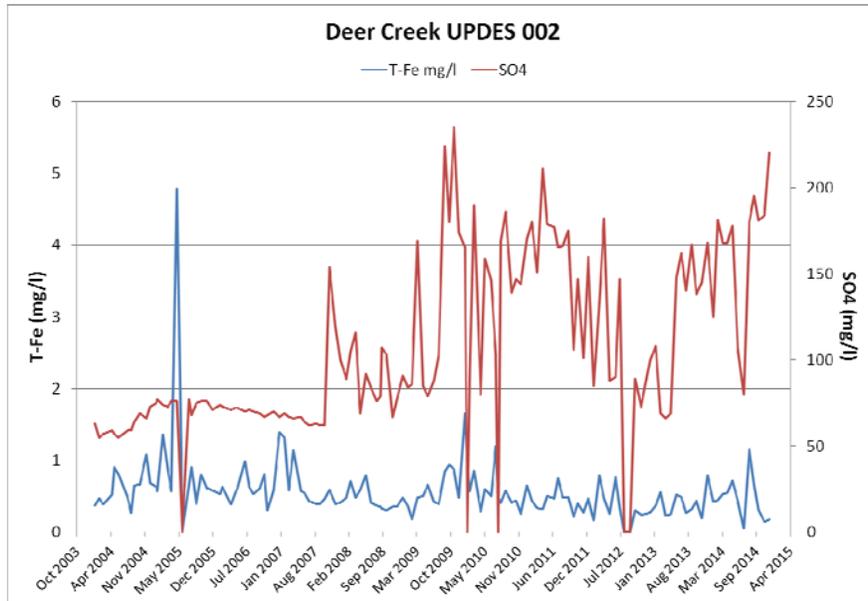
Springs YES NO

80-48, 89-66: Cond(FLD)
89-67: D-Mg, Wat. Temp
89-68: Temp, Cond, Flow, D-Na, SO4
JV-34: Cond
Little Bear: Cond, TDS

MF-19B: D-Na
 MF-219: D-Mg
 MFR-30: Cond
 UJV 101: Cond, D-Mg, S04
 UJV 206: Cond, D-Mg

Streams YES NO
Wells YES NO
UPDES YES NO

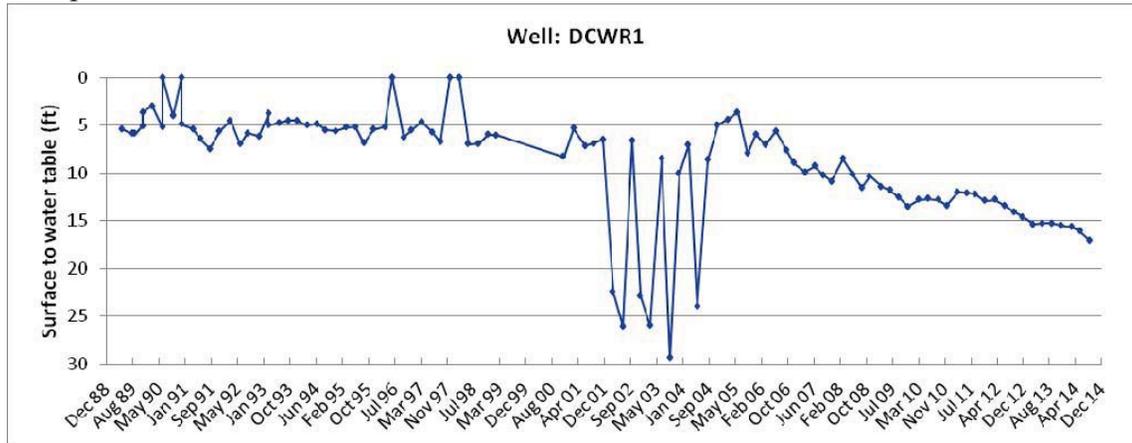
Mine water discharge at the UPDES outfall has ceased. The south half of the Deer Creek mine has been sealed. The pumps in the Mill Fork lease that produced the vast majority of in-mine dewatering were shut off as of mid-2015. Mine pools are developing and mine water will eventually gravity drain to the Deer Creek portals and the Rilda Right portals. Since there is no discharge from the Deer Creek mine portals the graph below is currently not applicable. Once gravity drainage reaches the Deer Creek and Rilda Right portals the graph should be reinitiated.



Wells YES NO

The Deer Creek Waste Rock well has been dropping since 2006 (following a small rise in 2004-2005). These changes are probably from factors other than disposal of waste rock at this

site: a similar drop in water level is seen at WCWR1 at the Cottonwood/Wilberg Mine Waste Rock Disposal Site.



This well is no longer a Pacificorp water monitored site. It is now monitored by Bowie as the Deer Creek Waste Rock site.

4. **On what date does the MRP require a five-year resampling of baseline water data.**
Baseline analyses were performed in 2001, 2006 and 2011 and are to be repeated every 5 years. The next baseline analyses will be conducted in 2016.
5. **Based on your review, what further actions, if any, do you recommend?**
There is no indication of trends or extremes in any of the parameter values. No further action recommended at this time.
6. **Does the Mine Operator need to submit more information to fulfill this quarter's monitoring requirements?** YES NO
7. **Follow-up from last quarter, if necessary.**
None.
8. **Did the Mine Operator submit all the missing and/or irregular data (datum)?**
NA.